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AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (original) A variable clamp equalization method comprising the steps of:

(i) measuring optical signal to noise ratio (OSNR) values for each wavelength;

(ii) computing an OSNR range value of the measured OSNR values;

(iii) computing an OSNR average value of the measured OSNR values;

(iv) computing a raw power adjustment value for each wavelength by subtracting each wavelength's measured OSNR value from the computed OSNR average value;

(v) computing a raw power adjustment correction factor for each computed raw power adjustment value based on the computed OSNR range value in accordance with a pre-defined variable clamp value schedule, wherein a larger clamp is scheduled for use when the computed OSNR range value is larger, and a smaller clamp is scheduled for use when the computed OSNR range value is smaller;

(vi) determining a clamped power adjustment value for each wavelength by multiplying each computed raw power adjustment value by the computed raw power adjustment correction factor;

(vii) applying the corresponding determined clamped power adjustment value to each wavelength; and

(viii) iterating steps (i) through (vii) until the computed OSNR range value is within pre-defined boundaries, whereby the signal is considered equalized.

2. (original) The method according to claim 1, wherein the raw power adjustment correction factor is computed by:

(i) determining the largest magnitude computed raw power adjustment value; and

(ii) dividing the scheduled clamp value by the determined largest magnitude computed raw power adjustment value.

3. (original) A variable clamp equalization apparatus comprising:

(i) means for measuring optical signal to noise ratio (OSNR) values for each wavelength;

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(ii) means for computing an OSNR range value of the measured OSNR values;

(iii) means for computing an OSNR average value of the measured OSNR values; (iv) means for computing a raw power adjustment value for each wavelength by subtracting each wavelength's measured OSNR value from the computed OSNR average value;

(v) means for computing a raw power adjustment correction factor for each computed raw power adjustment value based on the computed OSNR range value in accordance with a pre-defined variable clamp value schedule, wherein a larger clamp is scheduled for use when the computed OSNR range value is larger, and a smaller clamp is scheduled for use when the computed OSNR range value is smaller;

(vi) means for determining a clamped power adjustment value for each wavelength by multiplying each computed raw power adjustment value by the computed raw power adjustment correction factor;

(vii) means for applying the corresponding determined clamped power adjustment value to each wavelength; and

(viii) means for iterating means (i) through (vii) until the computed OSNR range value is within pre-defined boundaries, whereby the signal is considered equalized.

4. (currently amended) The apparatus according to claim 3, wherein the raw power adjustment correction factor computing means includes:

means for determining the largest magnitude computed raw power adjustment value; and

means for dividing the scheduled clamp value by the determined largest magnitude computed raw power adjustment value.[[;]]

5. (currently amended)   A <u>computer readable</u> storage medium ~~readable by a computer encoding a computer process to provide~~ <u>storing instructions or statements for use in the execution of</u> a variable clamp equalization method <u>in a computer</u>, the ~~computer process~~ <u>method</u> comprising:

(i) a processing portion for measuring optical signal to noise ratio (OSNR) values for each wavelength;

(ii) a processing portion for computing an OSNR range value of the measured OSNR values;

(iii) a processing portion for computing an OSNR average value of the measured OSNR values;

(iv) a processing portion for computing a raw power adjustment value for each wavelength by subtracting each wavelength's measured OSNR value from the computed OSNR average value;

(v) a processing portion for computing a raw power adjustment correction factor for each computed raw power adjustment value based on the computed OSNR range value in accordance with a pre-defined variable clamp value schedule, wherein a larger clamp is scheduled for use when the computed OSNR range value is larger, and a smaller clamp is scheduled for use when the computed OSNR range value is smaller;

(vi) a processing portion for determining a clamped power adjustment value for each wavelength by multiplying each computed raw power adjustment value by the computed raw power adjustment correction factor;

(vii) a processing portion for applying the corresponding determined clamped power adjustment value to each wavelength; and

(viii) a processing portion for iterating processing portions (i) through (vii) until the computed OSNR range value is within pre-defined boundaries, whereby the signal is considered equalized.

6. (currently amended)   The computer readable storage medium method according to claim 5, wherein the raw power adjustment correction factor is computed by including:

a processing portion for determining the largest magnitude computed raw power adjustment value; and

a processing portion for dividing the scheduled clamp value by the determined largest magnitude computed raw power adjustment value.[[.]]